



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,304	12/08/2000	Samuel Earl Moore	Series 5551	2994

7590 02/24/2004

Air Liquide
Intellectual Property Department
Ste. 1800
2700 Post Oak Blvd.
Houston, TX 77056

EXAMINER

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/733,304

Applicant(s)

MOORE, SAMUEL EARL

Examiner

Joseph S. Del Sole

Art Unit

1722

eb

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003 and 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claim 11 remains withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Terminal Disclaimer

2. The terminal disclaimer filed on 9/12/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 09/733,303 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Drawings

3. The drawings are objected to because a) Figure 2 includes reference numeral 114, however the feature represented by 114 (the secondary bore forming fluid passage) is not part of Figure 2; the Examiner suggests deleting reference numeral 114 from Figure 2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The sole limitation of claim

Art Unit: 1722

9, "said fiber forming material passage is formed in said unitary spinnerette body" does not further limit the following limitation of parent claim 1: "at least one fiber-forming material passage formed in said unitary spinnerette body".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-3, 6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore, Sr (5,320,512) in view of Hume (3,453,689).

Moore, Sr. teaches a spinnerette assembly (Fig 1) having a spinnerette body (Fig 1, the body is in two parts: #12 and #14); at least one extrusion orifice (Fig 1, #26) formed in the spinnerette body; a hollow needle (Fig 1, #18) being affixed in a needle mounting hole (Fig 1) formed in the spinnerette body and wherein the needle mounting hole receives a portion of the hollow needle; a hollow needle (Fig 1, #18) extending through the extrusion orifice in a concentric manner to define an annular passage (Fig

Art Unit: 1722

1, #28) around the needle in the extrusion orifice (the Examiner notes that the needle affixed in the hole and the needle extending through the extrusion orifice are interpreted as the same needle); a bore forming fluid passage (Fig 1, #15) formed in the spinnerette body and communicating with the interior of the needle; a fiber-forming material passage (Fig 1, #16) formed in the spinnerette body, wherein the material passage has a fiber-forming material inlet port extending from a surface of the body to an interior of the body (Fig 1, the portion in #14) and a transverse passage extending from the material port to the annular passage (Fig 1, the portion of the path that borders #12 and #14); a bottom plate (Fig 1, #10); the transverse portion is a backcut portion of the material passage that entirely surrounds the needle in a continuous manner and is in communication with the extrusion orifice (Fig 1, the portion of the path that borders #12 and #14); the material port extends substantially parallel to the extrusion orifice and the transverse passage extends substantially perpendicular to the material port (as shown by the portion of the transverse passage that follows a line between #12 and #14); the needle mounting hole is in communication with the bore forming fluid inlet port at a surface of the spinnerette body via the bore forming fluid passage (Fig 1); the extrusion orifice extends through portions of the spinnerette body and the bottom plate; and the material passage is formed in the spinnerette body.

Moore, Sr fails to teach the spinnerette body being a unitary body.

Hume teaches a spinnerette body (Fig 1, #10) having an extrusion orifice (Fig 3, at #s 22, 24 and 38), a hollow needle (Fig 3, #12) and a fiber forming material passage (Fig 3, #28), the spinnerette body being a unitary body for the purpose of having a

Art Unit: 1722

spinnerette assembly that is simple and easy to manufacture and assemble (col 1, lines 32-35 and col 3, lines 63-73).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the two part spinnerette body of Moore, Sr (Fig 1, #s 12 and 14) by having a unitary spinnerette body as taught by Hume because it simplifies the manufacturing and assembling of the spinnerette assembly and furthermore it would have been obvious to build the spinnerette body of Moore, Sr as a single unit instead of as a combination of pieces because given a structure that is of separate elements does not preclude it consisting of an integrated apparatus.

The Examiner notes that since "at least one" is claimed for the extrusion orifice and the accompanying features (i.e. needle, fiber-forming material passage), the claims can be interpreted as having only one of each of the features.

Allowable Subject Matter

8. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest the bore forming fluid passage having a first bore forming fluid conduit coaxial with the needle and in communication with the needle and a second bore forming fluid conduit that extends at an angle with respect to the first bore forming fluid conduit from the bore forming fluid conduit (the Examiner interprets "said bore forming fluid conduit" of line 5 of claim 7 as the first bore

Art Unit: 1722

forming fluid conduit) to a surface of the unitary spinnerette body in combination with the limitations of the parent claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-3 and 6-9 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant's amendments have necessitated the new grounds of rejection. Nevertheless the Applicant argues that the addition of the limitation that the spinnerette body be of unitary design overcomes the rejection over Moore, Sr.

The Examiner agrees that the 35USC102(b) rejection has been overcome, however despite the added limitation, claims 1-3, 6 and 8-9 are rejected under 35USC103(a) as unpatentable over Moore, Sr. in view of Hume as discussed above.

The Applicant argues that the rejection over Coplan et al has been overcome by amendment.

The Examiner agrees.

The Applicant argues that the double patenting claim rejections have been overcome by the filing of the terminal disclaimer.

The Examiner agrees.

The Examiner has reconsidered the rejection of claim 7 and now finds the subject matter of claim 7 allowable.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (571) 272-1151. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Joseph S. Lee

J.S.D.

February 11, 2004